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PCT/GB2005/000300



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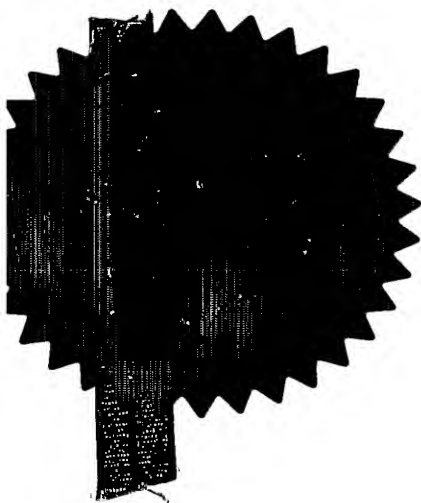
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Signed

*Stephen Hordley*

Dated

11 February 2005



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1. Your reference

46688.GB01/MAR 27 FEB 04 EB69767-1 D01631

2. Patent application number  
(The Patent Office will fill in this part)

0402126.7

POL 7700 0.00-0402126.7 NONE

3. Full name, address and postcode of the or of each applicant (underline all surnames)

Elizabeth Pimm  
83 Hertford Street  
Cambridge  
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Patents ADP number (if you know it)

If the applicant is a corporate body, give the country/state of incorporation

08799686001

4. Title of the invention

Baby product

5. Full name, address and postcode in the United Kingdom to which all correspondence relating to this form and translation should be sent

Reddie & Grose  
16 Theobalds Road  
LONDON  
WC1X 8PL

Patents ADP number (if you know it)

91001

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number

Country

Priority application  
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Date of filing  
(day/month/year)

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application

Date of filing  
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8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (Answer 'Yes' if:

a) any applicant named in part 3 is not an inventor, or

b) there is an inventor who is not named as an applicant, or

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Description	7
Claim(s)	3
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Priority documents	0
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Statement of inventorship and right to grant of a patent ( <i>Patents Form 7/77</i> )	0
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Request for substantive examination ( <i>Patents Form 10/77</i> )	0
Any other documents (please specify)	

11. I/We request the grant of a patent on the basis of this application.

Signature

Date  
29 January 2004

*Reddick & Grose*

12. Name and daytime telephone number of person to contact in the United Kingdom

M A ROBERTS  
01223 360350

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Baby product

The present invention relates to a product for use with babies, in particular a kit for changing a baby's nappy.

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Travelling with or looking after a baby away from home generally requires several baby accessories which are often carried in a bag. Typical accessories include some sort of changing mat, one or more unused nappies, a container of baby-wipes, one or more containers of nappy cream and/or baby powder, a sealable  
10 container for soiled nappies, bottles of water, juice or milk, rusks or baby snacks, and several favourite rattles or toys. It may take some time to locate one or more of the required accessories, and together they can be bulky and inconvenient to carry around.

15 For example, walks or shopping with a baby can become an epic journey for a baby carer, requiring a bulky accessories bag to squeezed into (and possibly overbalance) a pushchair, take up space under a car seat or other seat, and/or be carried with some difficulty in addition to the baby.

20 Several public establishments do provide facilities for baby changing, for example a changing mat and a nappy disposal bin, and this may partially alleviate the requirement for certain baby accessories at least in an urban environment. However, the use of such public facilities may not be convenient or hygiene standards may be inadequate.

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The prior art provides several examples of nappy changing aids. For instance, US4,154,323 discloses a carrying bag for holding diapers and other baby supplies and incorporating a strip of material permanently or detachably secured to an inner portion of the bag. The strip of material can be extended from the top  
30 of the bag and used as a surface for changing a baby's nappy. GB2378380 teaches the use of a mat comprising pockets for nappies and the like and which can be rolled into a tubular configuration for storage or transport. In US4,886,150, a baby changing device which doubles as a bag for accessories to feed and change a baby is described. The device comprises an elongated central  
35 changing area bordered by a pair of pocket-containing ends, and can be folded double to form an article more suitable for carrying.

Disposable nappies as well as disposable packages for receiving and retaining nappy-changing toiletries are also known. For example, US4,702,378 discloses a disposable kit having a body with several pockets for retaining toiletries and a nappy. The body can be folded so that the toiletries and nappy are enveloped within the interior of the kit and protected from degradation. US5,443,161 describes a disposable pack having supplies for two complete nappy changes. The pack is enclosed by material including a tear line to permit access to the supplies. GB2238286 discloses a disposable pack of items comprising an outer flat envelope perforated along one edge and containing a folded changing mat, nappy-changing materials and a disposal bag. After use, any soiled items can be returned to the disposal bag and discarded.

While several nappy-changing articles have been developed, there remains a need for improvement. For example, in some cases prior art articles may not be particularly easy to handle while attending to a baby. Other articles may become unhygienic after repeated use. The present invention aims to provide an alternative and improved means for changing a baby's nappy.

According to the present invention there is provided a single-use kit for hygienically changing and disposing of a baby's nappy, comprising a foldable and/or rollable mat and a first mat extension having a pocket containing a nappy-changing material, in which the kit is openable by unfolding and/or unrolling the mat and first mat extension and closable by folding and/or rolling the mat and first mat extension, the kit when open providing (i) a nappy-changing surface on the mat and (ii) single-handed access to the nappy-changing material, and in which the kit when closed is suitable for enclosing a soiled nappy and/or used nappy-changing material.

The present invention thus provides a single-use nappy-changing kit (or packet) for short-term, emergency or regular use. The all-in-one kit can be used to easily and hygienically change a soiled nappy of a baby. The kit provides its own nappy-changing surface, allowing the kit to be used on substrates which may otherwise be unsuitable for changing a baby, for example a floor, a carpet, a table, or grass. The kit may be used on unclean substrates such as a public baby changing area with inadequate hygiene standards.

The kit also provides a convenient vehicle for discarding the used nappy-changing surface, the soiled nappy and the used nappy-changing material. The compactness of the mat and mat extension, and the ability to access nappy-changing material single-handedly makes the kit less fussy and easier to use than known nappy-changing articles.

The kit may further comprise an unused nappy, for example positioned within the kit to be accessible when the kit is open. The nappy is in one embodiment loose within the kit so that it can be removed when the kit is open and before the baby is placed on the mat. The nappy is preferably a standard size, which can vary according to the age of the baby. The kit itself may be provided in different sizes for different baby sizes or ages.

In one embodiment, the pocket is frangibly sealed to facilitate single-handed opening. The pocket may comprise a tear strip (for example, located along one edge of the pocket) and/or a tab (for example, located at a corner of the pocket) to facilitate single-handed opening. The opening of the pocket may be assisted by the weight of the baby on the mat when the kit is being used. The mat extension may comprise two or more pockets containing different nappy-changing materials.

The mat is preferably substantially rectangular when the kit is open, providing a convenient nappy-changing surface for the baby.

In a preferred embodiment, the first mat extension (or flap) extends from a side of the mat. The kit may comprise a second mat extension (or flap) substantially opposite the first mat extension. With two mat extensions, the kit when open may be of cruciform shape or be T-shaped. Furthermore, the kit may be closed by folding and/or rolling the mat and mat extensions, and opened by unfolding and/or unrolling the mat and mat extensions, the second mat extension forming a surface for receiving a soiled nappy when the kit is open.

The nappy-changing material may include one or more of the following: one or more sheets of liquid-absorbing material, one or more sheets of material impregnated with a cleansing liquid, one or more sheets of material impregnated



with an antiseptic and/or antiseptic material, a protective cream or lotion for a baby, a hand cream, a bag (for example, a sealable bag), and a baby toy (preferably a flat baby toy such as a teething ring). Different nappy-changing materials may be contained in different pockets.

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The mat may comprise a padded section onto which the baby's head can be placed when the kit is open. This is particularly useful where a nappy change is required but no soft surfaces are available on which to place the kit.

10 The kit may comprise a fastener (for example, a releasable fastener such as a tie means and/or a hook-and-loop fastening means such as Velcro [RTM] and/or reusable adhesive tabs) attached to the mat and/or either mat extension, in which the fastener allows the kit to be held closed.

15 The kit may comprise a carry means (for example, a handle). This will make the kit more accessible and easier to dispose of.

The mat and/or mat extensions may be formed from a plastics material. Alternatively, the mat and/or mat extensions may be formed from paper with a plastics coating. The kit is preferably substantially biodegradable.

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In one embodiment, the mat comprises a releasable layer (for example, a pad or sheet of impermeable material) covering at least part of the nappy-changing surface. This would allow the releasable layer to be used as a surface for removing a soiled nappy, following which the releasable layer could be removed to leave a clean surface on the mat for putting on a clean nappy or clean outer garments.

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The invention also provides a method of producing the kit as described herein, and an apparatus for producing the kit. The kit may be produced using materials as described above. In one embodiment, the mat and mat extensions are manufactured as one unit, with further components such as the nappy-changing materials then added to the pockets before the pockets are optionally sealed.

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35 Embodiments of the invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

Fig. 1 is a plan view of a single-use nappy kit in a closed position;

Fig. 2 shows the kit of Fig. 1 in an open position; and

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Fig. 3 shows the kit of Figs 1 and 2 in a partially closed position.

A nappy-changing kit 1 is shown in a closed position in Fig. 1. In the closed position, kit 1 is rectangular in plan view. The kit 1 is kept closed by a hook-and-loop fastener 2.

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In the open position shown in Fig. 2, kit 1 is T-shaped (inverted) with an elongated mat 3 having extending therefrom side flaps (or mat extensions) 4, 5. Side flap 4 incorporates a first envelope or pocket 6 with one or more sheets of a material moistened with cleansing liquid (for example, "baby wipes") and a second envelope or pocket 7 with one or more antiseptic wipes for a carer to use while or after changing a nappy. Each pocket 6, 7 can be opened with one hand using a tear-tab 8a, 8b located at one corner of each pocket 6, 7. An unused nappy 9 (shown in outline) fits loosely onto a central position of the mat 3 and is available when the kit 1 is open. At an upper end of the mat 3 is located a padded head rest 10 onto which a baby's head can be rested.

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In use, a basic nappy-changing kit 1 would first be opened following a reverse procedure to the closing sequence described below. When open, the kit 1 provides a clean, hygienic, elongated working surface on mat 3. The unused nappy 9 is set aside from the mat 3 and the baby reclined onto mat 3 with his or her head resting on head rest 10. The two flaps 4, 5 provide a wider working surface area. The pockets 6, 7 on one flap 4 are used to store materials required to change the baby, and these pockets 6, 7 are easily opened with one hand using the tear-tabs 8a, 8b so that the carer has a free hand for attending to the baby or soiled nappy. A soiled nappy once removed from the baby can be conveniently placed to one side on the other flap 5. The baby can then be cleaned using baby wipes provided in pocket 6, and the used wipes placed to one side on the other flap 5. The carer can wipe his or her hands using the antiseptic wipe provided in pocket 7, and used antiseptic wipes can also be placed on the other flap 5. The unused nappy can then be fitted onto the baby.

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The carer could again wipe his or her hands using a further antiseptic wipe provided in pocket 7, which can be placed on the other flap 5.

When finished with a nappy change, the kit 1 may be closed by folding the mat 3 and flaps 4, 5 as shown in Fig. 1. Before the folding sequence is commenced, the carer places the soiled nappy, used baby wipes and used antiseptic wipe into the central portion of the mat 3 between the flaps 4, 5. The upper end of the mat 3 extending beyond the flaps 4, 5 is folded inwardly and roughly in half (as indicated by arrow 11 in Fig. 1). Fold lines (such as dotted line 12 shown in Fig. 1) may be weakened compared to the surrounding material, for example by being thinner or comprising a different material, to facilitate folding. Flap 5 is then folded inwardly as indicated by arrow 13 onto the central portion of mat 3, following which flap 4 is folded inwardly onto the reverse side of flap 5, as indicated by arrow 14. At this point, the kit 1 is partially closed as shown in Fig. 3.

From the partially closed position, the lower end 15 of mat 3 is folded inwardly as indicated by arrow 16 onto the folded-over flaps 4, 5 (see Fig. 3). Finally, the folded-over upper end of mat 3 is then folded inwardly as indicated by arrow 17 and the two hook-and-loop fastener tabs 2a (reverse side of) and 2b brought together to close the kit 1 as shown in Fig. 1. The kit 1 now encloses a soiled nappy and used wipes.

Thus on completion of a nappy change the soiled nappy and used wipes may be enclosed in the kit 1 to form a waste bag which can be disposed of. Alternatively, the waste bag can be kept until a suitable disposal means is available. In some cases, it may be desirable to place the waste bag into a waterproof disposal bag optionally provided with the kit 1 to avoid leakage from a very soiled nappy.

In another embodiment, the pockets on flap 4 could be switched to flap 5 to make the kit easier for left-handed carers to use.

In a further embodiment, flap 4 comprises one or more further pockets with items such as baby cream and/or hand cream and/or a waterproof disposal bag.

In a different embodiment, a further layer of material (such as a pad) is provided over the nappy-changing surface of the mat 3. This pad would provide an initial

surface on which a soiled nappy is taken off a baby. The pad could thereafter be removed from the rest of the mat 3 so that a cleaner mat surface is available for putting on a clean nappy. Alternatively, the pad could be removed prior to putting an outer garment onto the nappy (such as a "babygrow").

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The kit 1 may be produced in different sizes (for example small, medium and large) suitable for babies of different ages and sizes. When closed, as shown in Fig. 1, the kit 1 is preferably able to fit easily into a handbag or pocket or into a glove or side compartment of a vehicle.

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The kit 1 is preferably produced from inexpensive, preferably biodegradable material. The kit 1 could be produced primarily from recycled material.

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The invention thus provides an all-inclusive single-use nappy-changing kit or packet for short-term, emergency or regular use. The kits are quick and easy to use, hygienic, lightweight, travel friendly and easily disposable. A nappy change can take place almost anywhere as the packet forms its own clean surface without any fuss or special requirements and furthermore provides its own means for enclosing a soiled nappy and used nappy-changing materials so that they can

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be safely discarded.

## Claims

1. A single-use kit for hygienically changing and disposing of a baby's nappy, comprising a foldable and/or rollable mat and a first mat extension having a pocket containing a nappy-changing material, in which the kit is openable by unfolding and/or unrolling the mat and first mat extension and closable by folding and/or rolling the mat and first mat extension, the kit when open providing (i) a nappy-changing surface on the mat and (ii) single-handed access to the nappy-changing material, and in which the kit when closed is suitable for enclosing a soiled nappy and/or used nappy-changing material.
2. The kit according to claim 1, comprising an unused nappy.
3. The kit according to claim 2, in which the unused nappy is positioned within the kit to be accessible when the kit is open.
4. The kit according to any preceding claim, in which the pocket is frangibly sealed to facilitate single-handed opening.
5. The kit according to any preceding claim, in which the pocket comprises a tear strip to facilitate single-handed opening.
6. The kit according to any preceding claim, in which the pocket comprises a tab to facilitate single-handed opening.
7. The kit according to any preceding claim, in which the mat is substantially rectangular when the kit is open.
8. The kit according to any preceding claim, in which the first mat extension extends from a side of the mat.
9. The kit according to claim 8, in which the kit comprises a second mat extension substantially opposite the first mat extension.
10. The kit according to either of claim 8 or claim 9, in which the kit when open is of cruciform shape.

11. The kit according to any of claims 8 to 10, in which the kit when open is T-shaped.
- 5 12. The kit according to any of claims 8 to 11, in which the kit is closed by folding and/or rolling the mat and mat extensions, and opened by unfolding and/or unrolling the mat and mat extensions, the second mat extension forming a surface for receiving a soiled nappy when the kit is open.
- 10 13. The kit according to any preceding claim, in which the nappy-changing material includes one or more sheets of liquid-absorbing material, and/or one or more sheets of material impregnated with a cleansing liquid, and/or one or more sheets of material impregnated with an antiseptic and/or antiseptic material, and/or a protective cream or lotion for a baby, and/or a hand cream, and/or a bag  
15 (for example, a sealable bag), and/or a baby toy.
14. The kit according to any preceding claim, in which the mat comprises a padded section onto which the baby's head can be placed when the kit is open.
- 20 15. The kit according to any preceding claim, comprising a fastener (for example, a releasable fastener such as a tie means and/or a hook-and-loop fastening means and/or reusable adhesive tabs) attached to the mat and/or either mat extension, in which the fastener allows the kit to be held closed.
- 25 16. The kit according to any preceding claim, comprising a carry means (for example, a handle).
17. The kit according to any preceding claim, in which the mat and/or mat extensions are formed from a plastics material.
- 30 18. The kit according to any of claims 1 to 16, in which the mat and/or mat extensions are formed from paper with a plastics coating.
- 35 19. The kit according to any preceding claim, in which the kit is substantially biodegradable.

20. The kit according to any preceding claim, in which the mat comprises a releasable layer (for example, a pad) covering at least part of the nappy-changing surface.

- 5 21. A nappy-changing kit substantially as described herein with reference to the accompanying drawings.

